

A summary of influenza surveillance indicators reported to MDH for the week ending December 29, 2018

Prepared by the Division of Infectious Disease Surveillance Prevention and Health Promotion Administration Maryland Department of Health

The data presented in this document are provisional and subject to change as additional reports are received.

SUMMARY

During the week ending December 29, 2018 influenza-like illness (ILI) intensity in Maryland was **MINIMAL** and there was **LOCAL** geographic activity. The proportion of outpatient visits for ILI reported by Sentinel Providers and outpatient visits for ILI reported by Maryland Emergency Departments increased from last week. The proportion of MRITS respondents reporting ILI increased. Clinical laboratories reported an increase in the proportion of specimens testing positive for influenza. Eighteen specimens tested positive for influenza at the MDH lab. There were 28 influenza-associated hospitalizations. There were no respiratory outbreaks reported to MDH.

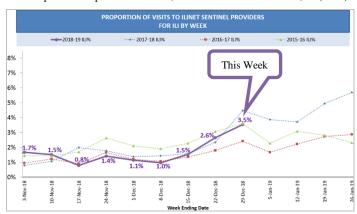
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ILI Intensity Levels
√ Minimal
Low
Moderate
High

Influenza Geographic Activity
No Activity
Sporadic
✓ Local
Regional
Widespread

ILINet Sentinel Providers

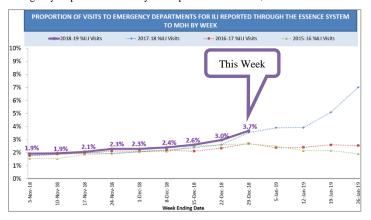
Thirteen providers reported a total of 1,871 visits this week. Of those, 66 (3.5%) were visits for ILI. This is above the Maryland baseline of 2.0%.



ILI Visits To Sentinel Providers By Age Group	This Week Number (%)	Last Week Number (%)	Season Number (%)
Age 0-4	41 (62%)	50 (28%)	360 (32%)
Age 5-24	19 (29%)	72 (40%)	445 (39%)
Age 25-49	4 (6%)	37 (21%)	180 (16%)
Age 50-64	2 (3%)	13 (7%)	94 (8%)
Age ≥ 65	0 (0%)	8 (4%)	59 (5%)
Total	66 (100%)	180 (100%)	1,138 (100%)

Visits to Emergency Departments for ILI

Emergency Departments in Maryland reported a total of 53,238 visits this week through the ESSENCE surveillance system. Of those, 1,953 (3.7%) were visits for ILI.



ILI Visits To Emergency Departments By Age Group	This Week Number (%)	Last Week Number (%)	Season Number (%)
Age 0-4	556 (28%)	361 (23%)	4,032 (25%)
Age 5-24	517 (26%)	494 (32%)	5,212 (32%)
Age 25-49	519 (27%)	464 (30%)	4,429 (27%)
Age 50-64	231 (12%)	167 (11%)	1,700 (10%)
Age ≥ 65	130 (7%)	74 (5%)	975 (6%)
Total	1,953 (100%)	1,560 (100%)	16,348 (100%)

Neighboring states' influenza information:

Delaware http://dhss.delaware.gov/dph/epi/influenzahome.html

District of Columbia http://doh.dc.gov/service/influenza

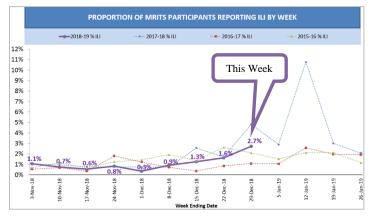
Virginia http://www.vdh.virginia.gov/epidemiology/influenza-flu-in-virginia/influenza-surveillance/

West Virginia http://dhhr.wv.gov/oeps/disease/flu/Pages/fluSurveillance.aspx

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Community-based Influenza Surveillance (MRITS)

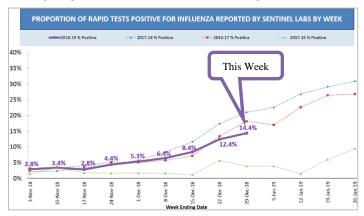
MRITS is the Maryland Resident Influenza Tracking System, a weekly survey for influenza-like illness (ILI). A total of 551 residents responded to the MRITS survey this week. Of those, 15 (2.7%) reported having ILI and missing greater than 35 cumulative day of regular daily activities.

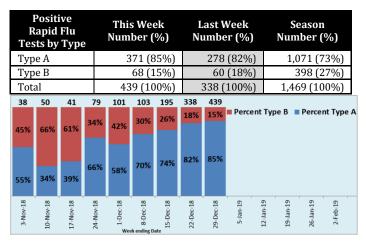


MRITS Respondents Reporting ILI By Age Group	This Week Number (%)	Last Week Number (%)	Season Number (%)
Age 0-4	0 (0%)	1 (13%)	8 (10%)
Age 5-24	3 (20%)	2 (25%)	19 (23%)
Age 25-49	6 (40%)	1 (13%)	24 (29%)
Age 50-64	2 (13%)	2 (25%)	16 (19%)
Age ≥ 65	4 (27%)	2 (25%)	16 (19%)
Total	15 (100%)	8 (100%)	83 (100%)

Clinical Laboratory Influenza Testing

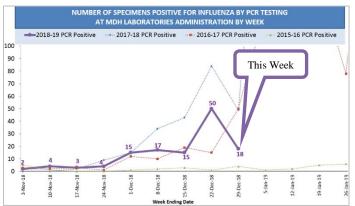
There were 48 clinical laboratories reporting 3,059 influenza diagnostic tests, mostly rapid influenza diagnostic tests (RIDTs). Of those, 439 (14.4%) were positive for influenza. Of those testing positive, 371 (85%) were influenza Type A and 68 (15%) were influenza Type B. The <u>reliability of RIDTs</u> depends largely on the conditions under which they are used. False-positive (and true-negative) results are more likely to occur when the disease prevalence in the community is low, which is generally at the beginning and end of the influenza season and during the summer.





State Laboratories Administration Influenza Testing

The MDH Laboratories Administration performed a total of 51 PCR tests for influenza and 18 (35.3%) were positive for influenza. Of those testing positive, 11 (61%) were positive for Type A (H1), 2 (11%) were positive for Type A (H3), and 5 (28%) were positive for Type B (Victoria). PCR testing is more reliable than RIDT. The MDH testing identifies subtypes of influenza A and lineages of influenza B, information that is not available from the RIDT results. The table below summarizes results by type, subtype, and lineage.

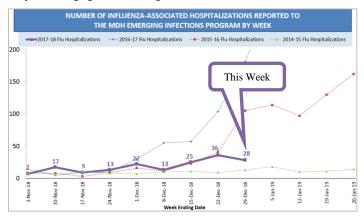


Positive PCR Tests by Type (Subtype)	This Week Number (%)	Last Week Number (%)	Season Number (%)
Type A (H1)	11 (61%)	43 (86%)	101 (71%)
Type A (H3)	2 (11%)	2 (4%)	16 (11%)
Type B (Victoria)	5 (28%)	4 (8%)	21 (15%)
Type B (Yamagata)	0 (0%)	1 (2%)	4 (3%)
Dual Type A (H1/H3)	0 (0%)	0 (0%)	0 (0%)
Total	18 (100%)	50 (100%)	142 (100%)

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Influenza-associated Hospitalizations

A total of 28 influenza-associated hospitalizations were reported this week. (A person with an overnight hospital stay along with a positive influenza test of any kind, e.g., RIDT or PCR, is considered an "influenza-associated hospitalization" for purposes of influenza surveillance.) This surveillance is conducted as a component of the Maryland Emerging Infections Program.



Influenza- Associated Hospitalizations by Age Group	This Week Number (%)	Last Week Number (%)	Season Number (%)
Age 0-4	3 (11%)	3 (8%)	28 (15%)
Age 5-17	1 (4%)	3 (8%)	11 (6%)
Age 18-24	0 (0%)	1 (3%)	7 (4%)
Age 25-49	6 (21%)	5 (14%)	36 (19%)
Age 50-64	8 (29%)	14 (39%)	46 (24%)
Age ≥ 65	10 (36%)	10 (28%)	65 (34%)
Total	28 (100%)	36 (100%)	193 (100%)

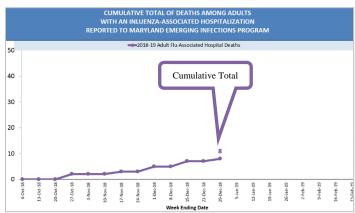
Influenza-associated Deaths

An influenza-associated death is one with a clinically compatible illness and a positive influenza test of any kind.

Pediatric Deaths: No pediatric (< 18 years of age) deaths were reported this week.

Influenza-associated pediatric mortality is a reportable condition in Maryland. Pediatric deaths are tracked without regard to hospitalization.

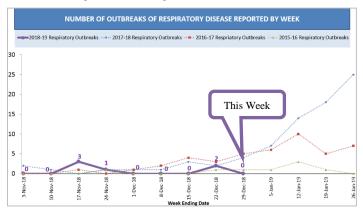
Adult Deaths Among Hospitalized Patients: A cumulative season total of 8 deaths have been reported among adults admitted to Maryland hospitals. Influenza-associated adult mortality is *not* a reportable condition in Maryland. However, surveillance for mortality in hospitalized adults is conducted as a component of the Maryland Emerging Infections Program.



Influenza-Associated Deaths	Cumulative Season Total	
Pediatric Deaths (Age < 18)	0	
Adult Deaths (in hospitalized cases)	8	

Outbreaks of Respiratory Disease

There were no respiratory outbreaks reported to MDH this week. (Disease outbreaks of any kind are reportable in Maryland. Respiratory outbreaks may be reclassified once a causative agent is detected, e.g., from ILI to influenza.)



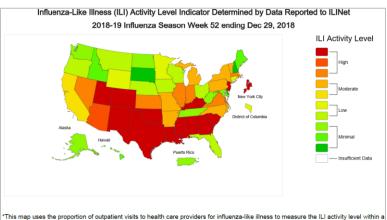
Respiratory Outbreaks by Type	This Week Number (%)	Last Week Number (%)	Season Number (%)
Influenza	0 (0%)	1 (50%)	1 (6%)
Influenza-like Illness	0 (0%)	1 (50%)	6 (38%)
Pneumonia	0 (0%)	0 (0%)	9 (56%)
Other Respiratory	0 (0%)	0 (0%)	0 (0%)
Total	0 (0%)	2 (100%)	16 (100%)

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National Influenza Surveillance (CDC)

Influenza activity in the United States is increasing. Influenza A(H1N1)pdm09, influenza A(H3N2), and influenza B viruses continue to co-circulate.

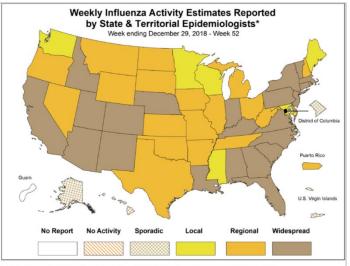
- Viral Surveillance: The percentage of respiratory specimens testing positive for influenza viruses in clinical laboratories is increasing. Influenza A viruses have predominated in the United States since the beginning of October. Influenza A(H1N1)pdm09 viruses have predominated in most areas of the country, however influenza A(H3) viruses have predominated in the southeastern United States (HHS Region 4).
- O <u>Influenza-like Illness Surveillance:</u> The proportion of outpatient visits for influenza-like illness (ILI) increased to 4.1%, which is above the national baseline of 2.2%. All 10 regions reported ILI at or above their region-specific baseline level. The increase in the percentage of patient visits for ILI may be influenced in part by a reduction in routine healthcare visits during the winter holidays, as has occurred during previous seasons.
- Geographic Spread of Influenza: The geographic spread of influenza in 24 states was reported as widespread; Puerto Rico and 18 states reported regional
 activity; six states reported local activity; the District of Columbia, the U.S. Virgin Islands and two states reported sporadic activity; and Guam did not
 report.
- O <u>Influenza-associated Hospitalizations:</u> A cumulative rate of 5.4 laboratory-confirmed influenza-associated hospitalizations per 100,000 population was reported. The highest hospitalization rate is among children younger than 5 years (14.5 hospitalizations per 100,000 population).
- Pneumonia and Influenza Mortality: The proportion of deaths attributed to pneumonia and influenza (P&I) was below the system-specific epidemic threshold in the National Center for Health Statistics (NCHS) Mortality Surveillance System.
- o Influenza-associated Pediatric Deaths: Two influenza-associated pediatric deaths were reported to CDC during week 52.
- Outpatient Illness Surveillance: Nationwide during week 52, 4.1% of patient visits reported through the U.S. Outpatient Influenza-like Illness Surveillance Network (ILINet) were due to influenza-like illness (ILI). This percentage is above the national baseline of 2.2%. (ILI is defined as fever (temperature of 100°F [37.8°C] or greater) and cough and/or sore throat.)





Data collected in ILINet may disproportionally represent certain populations within a state, and therefore, may not accurately depict the full picture of influenza activity for the whole state.

Data displayed in this map are based on data collected in ILINet, whereas the State and Territorial flu activity map is based on reports from state and territorial epidemiologists. The data presented in this map is preliminary and may change as more data are received. Differences in the data presented here by CDC and independently by some state health departments likely represent differing levels of data completeness with data presented by the state likely being the more complete.



This map indicates geographic spread & does not measure the severity of influenza activity

Where to get an influenza vaccination

Interested in getting a flu vaccine for the 2018-19 influenza season? Go to https://phpa.health.maryland.gov/influenza/Pages/getvaccinated.aspx and click on your county/city of residence. You will be redirected to your local health department website for local information on where to get your flu vaccine.